



**US Army Corps
of Engineers®**
New England District

696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Date: February 24, 2009

Comment Period Ends: March 26, 2009

File Number: NAE-2008-1161

In Reply Refer To: Michael J. Elliott

Or by e-mail: michael.j.elliott@usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below and on page 4 of this Public Notice. The Corps is soliciting comments on both the project itself and the range of issues to be addressed in the environmental documentation. Full size plans are available for review at the Corps offices located at 696 Virginia Road in Concord, MA.

APPLICANT

Rhode Island Resource Recovery Corp.; c/o D'Ambra Construction, Inc.

ACTIVITY

To build a new asphalt and concrete production plant in an industrial subdivision. A 45,437 square foot (1.03 acres) area of wetlands is proposed to be filled for the project. As mitigation the applicant has proposed the construction of a wetland mitigation area to be created on a nearby lot in the industrial subdivision. A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK

The site is located within the Lakeside Commerce Center on Austin's Way and Scituate Avenue in Johnston, Rhode Island. The location is on the USGS North Scituate, RI quadrangle sheet at lat/long coordinates N41° 31.23' and W71° 48.06'.

AUTHORITY

Permits are required pursuant to:

☐ Section 10 of the Rivers and Harbors Act of 1899

☒ Section 404 of the Clean Water Act

☐ Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Michael Elliott at (978) 318-8131, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

106 REVIEW COMPLETE

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation

CENAE-R
FILE NO. NAE-2007-518

Officer.

Pursuant to the Endangered Species Act, the District Engineer is hereby requesting that the appropriate Federal Agency provide comments regarding the presence of and potential impacts to listed species or its critical habitat.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

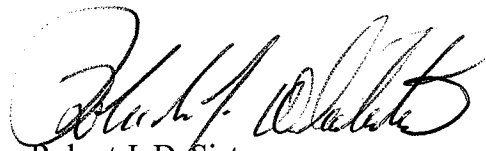
The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

The following authorizations have been applied for, or have been, or will be obtained:

- ☒ (X) Permit, License or Assent from State.
- ☐ () Permit from Local Wetland Agency or Conservation Commission.
- ☒ (X) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

For more information on the New England District Corps of Engineers programs, visit our website at <http://www.nae.usace.army.mil>.



Robert J. DeSista
Chief, Permits & Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

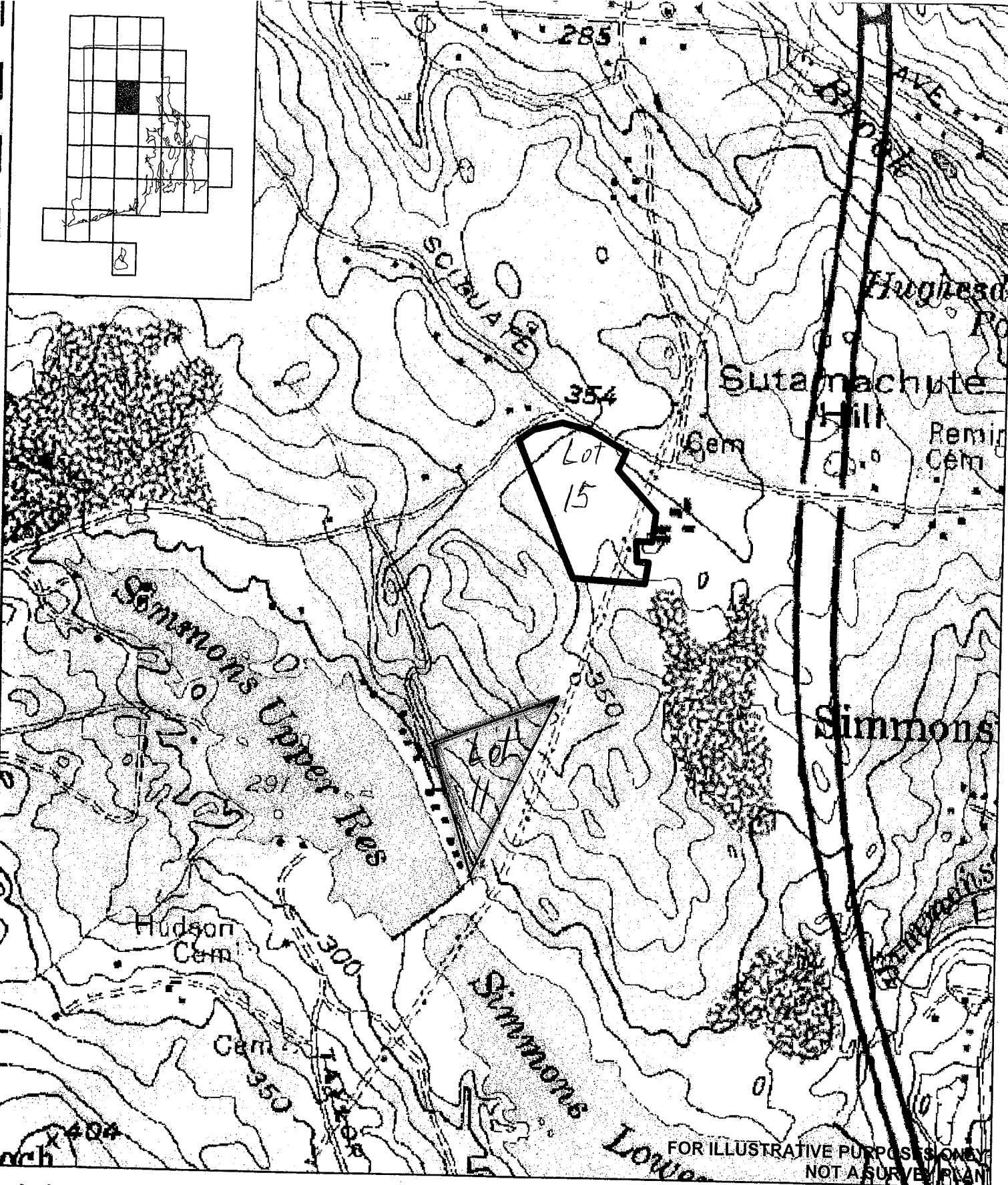
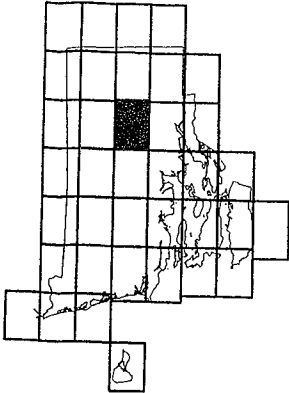
NAME: _____
ADDRESS: _____

PROPOSED WORK AND PURPOSE

The existing D'Ambra Construction primary asphalt and concrete production plant located on Jefferson Boulevard in Warwick is being taken by eminent domain by the State of Rhode Island. That site near T.F. Green Airport will be developed by the State as an intermodal transportation center. The proposed D'Ambra site at an industrial subdivision called Lakeside Commerce Center in Johnston would replace their Warwick facility. It is close to on and off ramps to I-295. The site is also near the Rhode Island Central Landfill and FPL Energy (a 500 megawatt electric generating facility) in an industrial area that would be compatible with this project.

The asphalt and concrete plant would be located on Lot 15 of the industrial subdivision. Due to the presence of a marsh near the center of the parcel the project requires filling of approximately 44,665 square feet (1.03 acres) of wetlands. As mitigation, a new marsh has been proposed to be built on the nearby Lot 11 of Lakeside Commerce Center. The wetland replication area will be created by excavating the identified wetland creation area and installing an impervious liner to ensure retention of sufficient surface waters. The mitigation area will be planted with herbaceous species. The created wetland will have a vegetative screen of Northern White Cedar trees established along the new slope at the edge of the created marsh. There is a small emergent/shrub wetland existing which will be enlarged. Approximately 67,000 square feet of biological wetland will be created. The replication area will replace the impacted wetland and its (state regulated) perimeter wetland with an approximate 2:1 ratio of created wetland and perimeter wetland.

The marsh to be filled on Lot 15 has questionable functions and values and is not a high quality wetland. The area was previously mined for gravel leaving a depression that it now dominated by purple loosestrife. The wetland area is currently littered with trash and debris.



FOR ILLUSTRATIVE PURPOSES ONLY
NOT A SURVEY PLAN

Lakeside Commerce Center

Johnston, RI

North Scituate Quad Map

2004 RIGIS Ortho Image #3228

— Approximate Lot 15
— Approximate Lot 11

USGS Topographic Series
Contour Interval 10 Feet
National Geodetic Vertical Datum of 1929

0 400 800 1,600 Feet

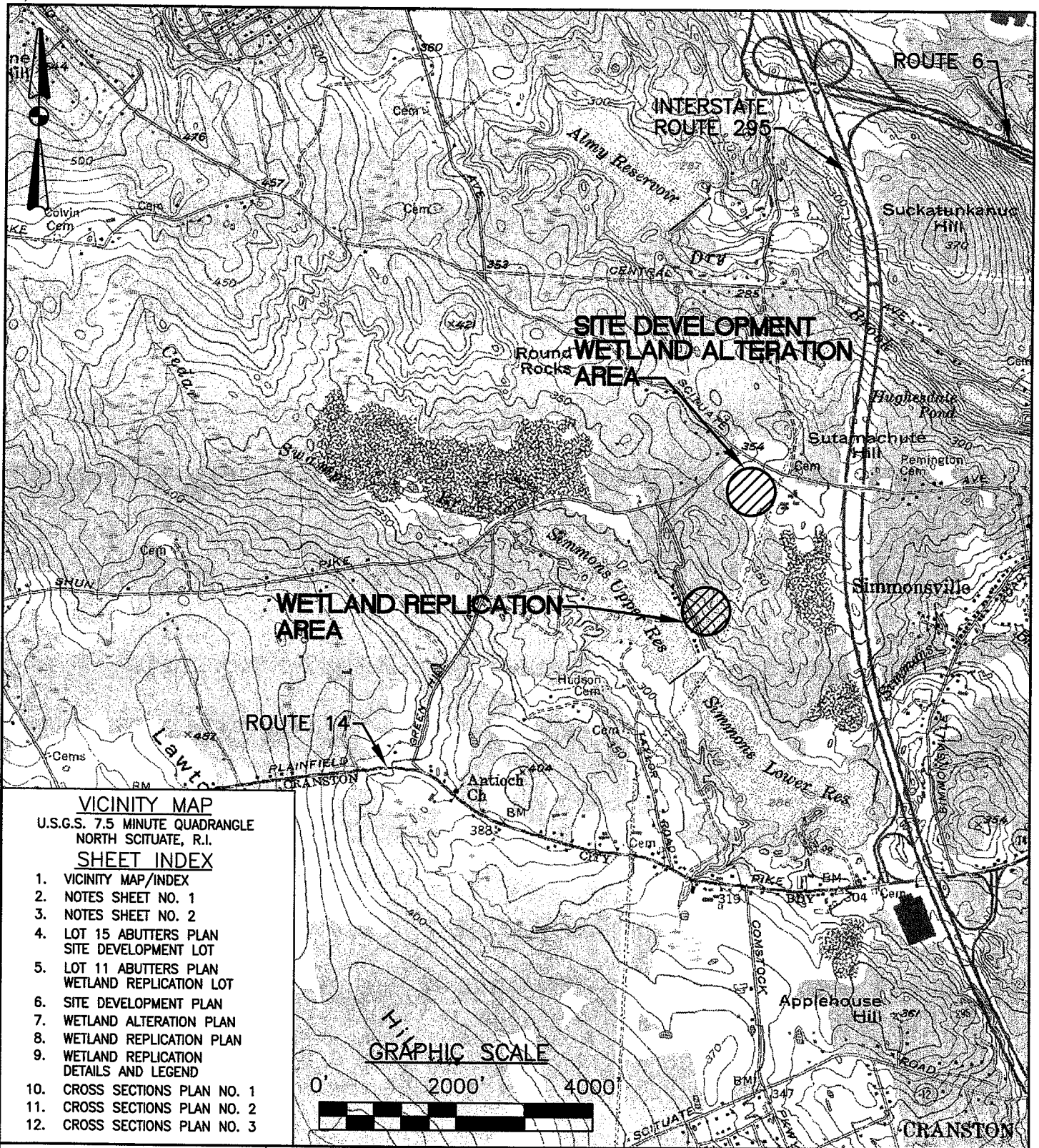


Natural Resource Services, Inc.

PO Box 311
86 Harrisville Main Street
Harrisville, RI 02830

p: (401) 568-7390
f: (401) 568-7490

(c) 1990 RIGIS



VICINITY MAP

U.S.G.S. 7.5 MINUTE QUADRANGLE
NORTH SCITUATE, R.I.

SHEET INDEX

1. VICINITY MAP/INDEX
2. NOTES SHEET NO. 1
3. NOTES SHEET NO. 2
4. LOT 15 ABUTTERS PLAN
SITE DEVELOPMENT LOT
5. LOT 11 ABUTTERS PLAN
WETLAND REPLICATION LOT
6. SITE DEVELOPMENT PLAN
7. WETLAND ALTERATION PLAN
8. WETLAND REPLICATION PLAN
9. WETLAND REPLICATION
DETAILS AND LEGEND
10. CROSS SECTIONS PLAN NO. 1
11. CROSS SECTIONS PLAN NO. 2
12. CROSS SECTIONS PLAN NO. 3

GRAPHIC SCALE



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

VICINITY MAP / INDEX

**A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

PREPARED FOR:

MICHAEL V. D'AMBRA

**SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

DATE: 1/09

SCALE: 1"=2000'

REVISIONS:

SHEET 1 OF 12

GENERAL NOTES:

1. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY LOCAL LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY TOWN, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD SPECIFICATIONS AND LATEST COMPILATION OF APPROVED SPECIFICATIONS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING INTO CATCH BASIN/MANHOLE, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. STANDARD DETAILS FOR THIS PROJECT ARE RHODE ISLAND STANDARD DETAILS. PROJECT SPECIFIC SPECIFICATIONS AND DETAILS SHOWN ON THE DESIGN PLANS SHALL SUPERCEDE THE RIDOT SPECIFICATIONS AND DETAILS.
3. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
4. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.
5. ALL STUMPS AND ROOTS ARE TO BE REMOVED AND DISPOSED OF OFF THE SITE IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL REGULATIONS.
6. EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" LOAM AND SEED, UNLESS OTHERWISE SHOWN.
7. THE DRAINAGE SYSTEM SHALL BE CLEANED BY THE CONTRACTOR PRIOR TO ACCEPTANCE OF THE PROJECT AT NO ADDITIONAL COST.
8. THE CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING LOAM FROM THOSE AREAS THAT ARE TO BE EXCAVATED OR FILLED AND TO WITHIN THE PROJECT LIMITS. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR OTHER UNSUITABLE MATERIAL UNLESS DIRECTED BY OWNER. ALL EXCESS SOIL REMAINS THE PROPERTY OF THE OWNER. EARTH EXCAVATION SHALL BE LIMITED TO THE DIMENSIONS AND REQUIREMENTS SHOWN ON THE DRAWINGS.
9. ALL EXISTING VEGETATION (TREES, SHRUBS, GRASSES, ETC.) TO REMAIN SHALL BE PROTECTED FROM INJURY. INDIVIDUAL TREES AND SHRUBS TO BE SAVED WITHIN THE DESIGNATED WORK AREA SHALL BE ADEQUATELY PROTECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL PROTECTIVE BARRIERS AS DIRECTED BY THE OWNER.

EMBANKMENT NOTES:

1. THE EARTH EMBANKMENTS ARE TO BE CONSTRUCTED WITH APPROVED COMMON BORROW. NO SOIL/ROCK GREATER THAN 4" SHALL BE UTILIZED.
2. UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, THE EMBANKMENT AREAS ARE TO BE EXCAVATED, IF ANY ORGANIC OR UNSUITABLE MATERIAL IS ENCOUNTERED. THE DEPTH OF EXCAVATION WILL BE DETERMINED BY THE ENGINEER BASED UPON THE LOCAL CONDITIONS. NO FILL MATERIAL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION HAS BEEN COMPLETED. ALL WATER SHALL BE REMOVED FROM THE FOUNDATION PRIOR TO PLACING THE EMBANKMENT. ALL FILL/Common BORROW SHALL MEET OR EXCEED AN IN-PLACE DENSITY OF 100 LB./C.F. ALL MATERIAL SHALL BE PLACED IN 8 TO 12 INCH LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. FILL MATERIAL WILL NOT CONTAIN FROZEN MATERIALS OR BE PLACED ON FROZEN SURFACES. COMMON BORROW SHALL MEET SPECIFICATION SECTION 202.02 IN THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
3. THE FILL MATERIAL MUST BE SPREAD IN UNIFORM LAYERS AND CONTAIN MOISTURE WITHIN THE SPECIFIED RANGE IN ORDER TO ACHIEVE THE REQUIRED COMPACTION. EACH LAYER IS TO BE COMPACTED PRIOR TO LAYING AN ADDITIONAL LAYER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS SELECTED METHOD OF COMPACTION, COMPACTION EQUIPMENT AND THE SEQUENCE OF OPERATIONS NECESSARY TO OBTAIN THE REQUIRED DENSITY. THE WATER CONTENT AT COMPACTION SHOULD BE IN THE RANGE BETWEEN ONE (1) PERCENTAGE POINT BELOW AND TWO (2) PERCENTAGE POINTS ABOVE STANDARD AASHTO OPTIMUM WATER CONTENT. THE MATERIAL SHALL BE PROCESSED TO A UNIFORM WATER CONTENT BY ADDING WATER TO THE MATERIAL IN ADVANCE OF THE FILL PLACEMENT.
4. BACKFILL MATERIAL AROUND STRUCTURES AND PIPES IS TO BE PLACED TO PREVENT THE MOVEMENT OF WATER. THE MOISTURE CONTENT MUST BE MAINTAINED IN THE SAME RANGE AS IN THE EMBANKMENT. THE BACKFILL MUST BE PLACED IN LAYERS LESS THAN FOUR (4) INCHES IN THICKNESS AND DISTRIBUTED UNIFORMLY AROUND THE STRUCTURE/PIPE. ALL COMPACTION WILL BE TO 95% MAXIMUM DENSITY AND REQUIRES HAND TAMPERS OR SMALL POWER EQUIPMENT. WHERE FILL IS TO BE PLACED AGAINST WALLS, THE CONTRACTOR MUST ENSURE THAT NO DAMAGE TO THE STRUCTURE OCCURS.
5. EMBANKMENT DAMAGE COMMONLY RESULTS FROM IMPROPER CONSTRUCTION OF CONDUIT AND STRUCTURAL BACKFILL WITHIN THE EMBANKMENT BECAUSE SEEPAGE WILL OCCUR WITH IMPROPER BACKFILL AND COMPACTION. THEREFORE, STRUCTURES AND PIPES ARE TO BE CONSTRUCTED AS THE EMBANKMENT CONSTRUCTION RISES TO THE RESPECTIVE PIPE OR STRUCTURE. THIS WILL PREVENT THE DISTURBANCE OF A CONSTRUCTED EMBANKMENT MATERIAL.

DRAINAGE SYSTEM NOTES:

1. CPP DRAINAGE LINES SHALL BE "ADS N-12" OR "HANCOR" HIGH DENSITY POLYETHYLENE PIPE. RCP SHALL BE CLASS IV. CPP CAN BE SUBSTITUTED FOR RCP. ALL PIPE JOINTS SHALL BE WATER-TIGHT AND SHALL CONFORM TO WATER LOADING REQUIREMENTS.
2. ALL MANHOLE RIM ELEVATIONS SHOWN ARE APPROXIMATE AND ARE TO BE SET FLUSH WITH FINAL GRADES.
3. ALL FRAME AND GRATES ARE TO BE 4--FLANGE UNLESS NOTED OTHERWISE.



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cel@crossmaneng.com

PROJECT TITLE:

NOTES SHEET NO. 1

A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

PREPARED FOR:

MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE:

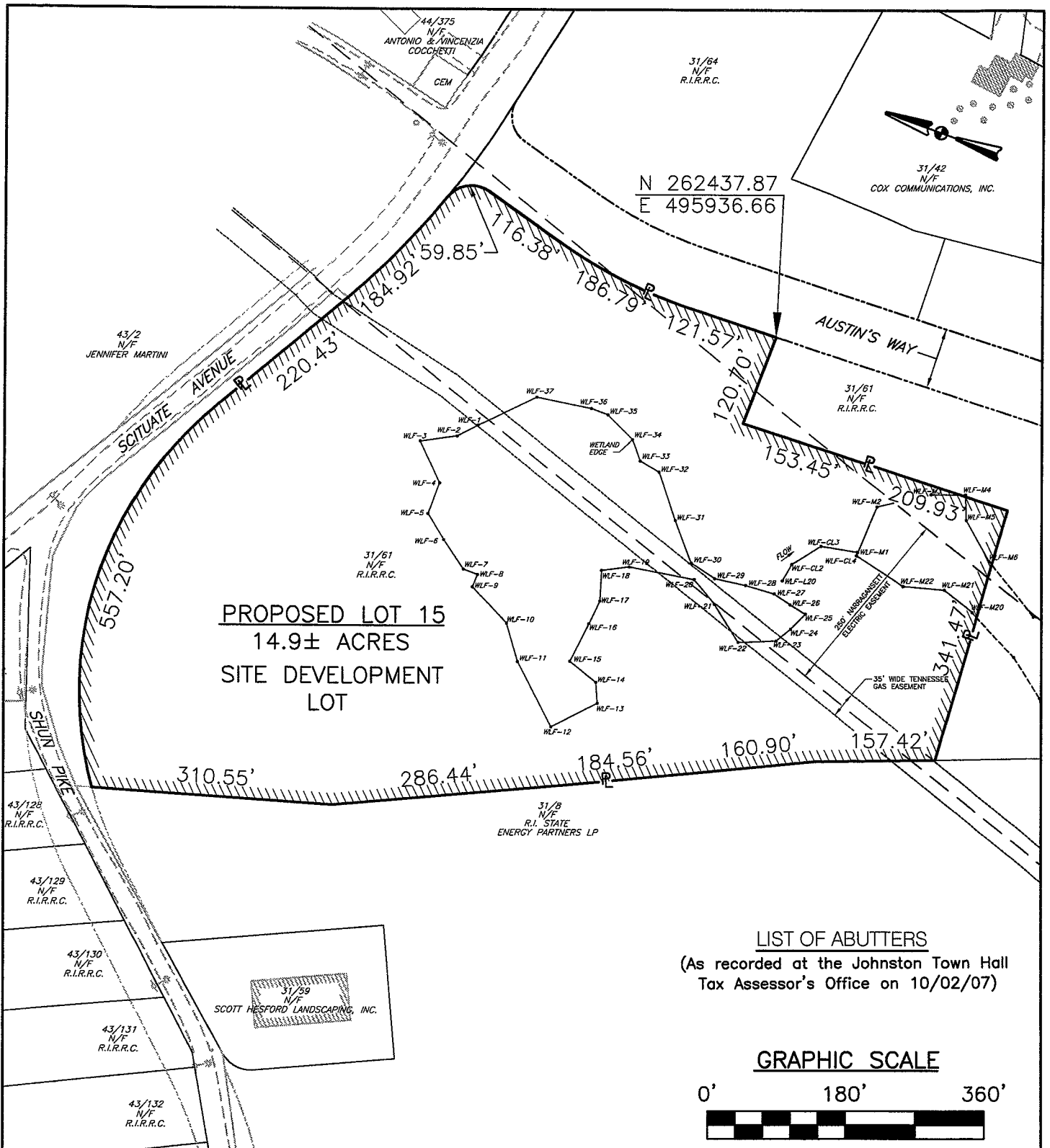
1/09

SCALE:

NO SCALE

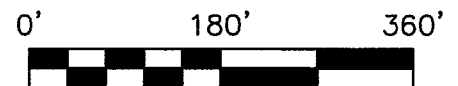
REVISIONS:

SHEET 2 OF 12



LIST OF ABUTTERS
(As recorded at the Johnston Town Hall
Tax Assessor's Office on 10/02/07)

GRAPHIC SCALE



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

**LOT 15 ABUTTER'S PLAN
SITE DEVELOPMENT LOT**

A.P. 31, LOT 61
**SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

PREPARED FOR:

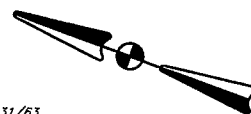
MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE: 1/09

SCALE: 1"=180'

REVISIONS:

SHEET 4 OF 12



250' NARRAGANSETT
ELECTRIC EASEMENT

**-35' WIDE TENNESSEE
GAS EASEMENT**

729.94'

WLF-56

WLF-57

WLF-58

WLF-59

WLF-S10

WLF-S11

WLF-S12

WLF-S13

WLF-S14

WLF-S15

WLF-S16

WLF-S17

31/B
N/F
R.L. STATE
ENERGY PARTNERS LP

R
RECOVER

31/61
N/F
R.I. RESOURCE
RECOVERY CORPORATION

N 260898.46
E 494966.02

31/61
N/F
R.I.R.C.

PROPOSED LOT 11
5.4± ACRES
WETLAND REPLICATION
LOT

RECYCLE ROAD—
(UNDER CONSTRUCTION)

LIST OF ABUTTERS
(As recorded at the Johnston Town Hall
Tax Assessor's Office on 10/02/07)

GRAPHIC SCALE

0' 120' 240'



APPROXIMATE
WETLAND EDGE



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

**LOT 11 ABUTTER'S PLAN
WETLAND REPLICATION LOT**

A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

PREPARED FOR:

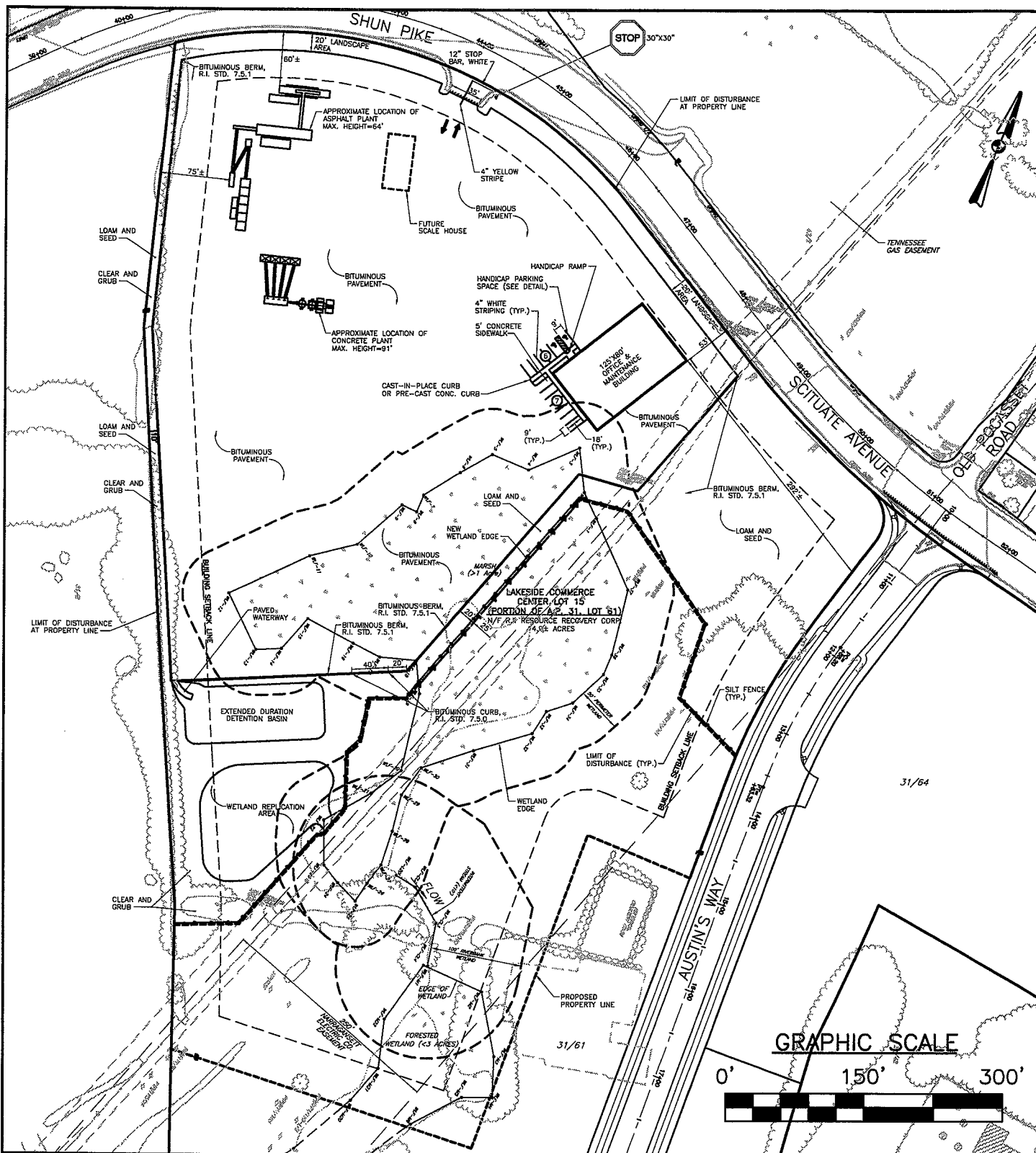
MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE: 1/09

SCALE: 1"=120'

REVISIONS:

SHEET 5 OF 12



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5860 - Fax: (401) 738-8157
Email: ce@crossmaneng.com

PROJECT TITLE:

SITE DEVELOPMENT PLAN

**A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

PREPARED FOR:

MICHAEL V. D'AMBRA

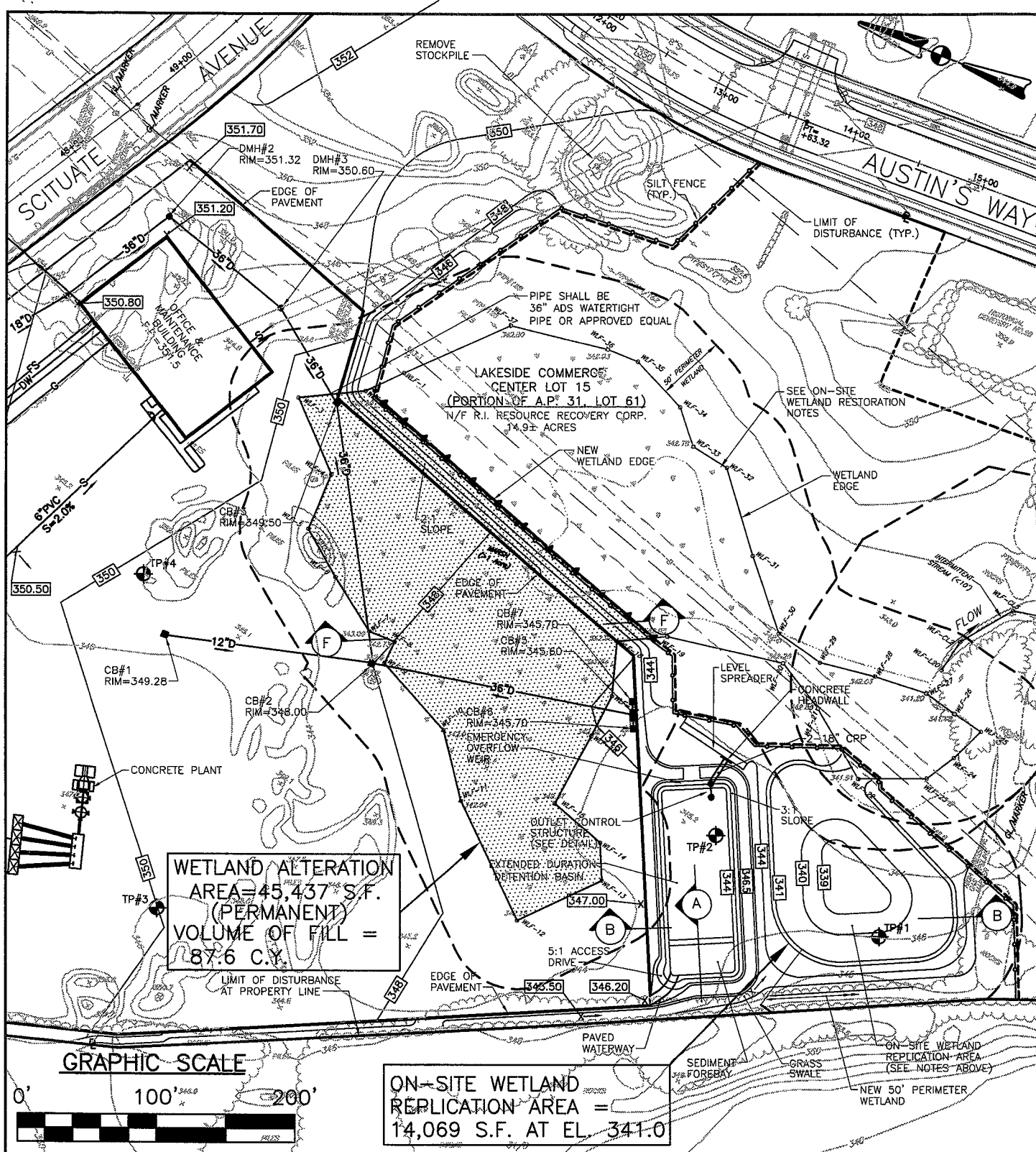
**SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

DATE: 1/09

SCALE: 1"=150'

REVISIONS:

SHEET 6 OF 12



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5860 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

WETLAND ALTERATION PLAN

**A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

PREPARED FOR:

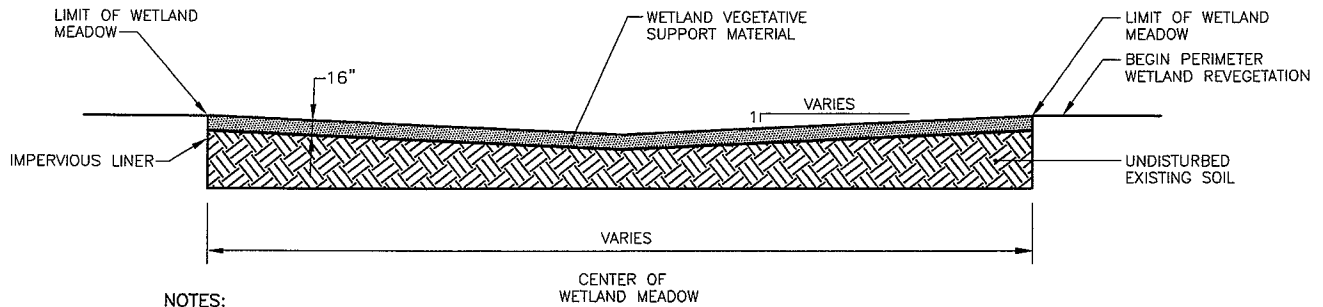
**MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

DATE: 1/09

SCALE: 1"=100'

REVISIONS:

SHEET 7 OF 12



NOTES:

1. WETLAND VEGETATIVE SUPPORT MATERIAL: 4" OF BIOSOLIDS COMPOST OR ORGANIC TOPSOIL BLENDED WITH 12" OF EXISTING SAND (24" OF EXISTING SAND OVER LINER).
2. PERIMETER WETLAND VEGETATIVE SUPPORT MATERIAL: 2" OF BIOSOLIDS COMPOST OR ORGANIC TOPSOIL BLENDED WITH 10" OF EXISTING SAND.
3. IMPERVIOUS LINER TO CONSIST OF ONE OF THE FOLLOWING SYSTEMS:
 - GEOSYNTHETIC CLAY LINER
 - OR
 - 12" LAYER OF COMPACTED SILT OR CLAY

LEGEND

- EROSION CONTROLS
- 6' INTERPRETIVE ACCESS PATH
- CONSTRUCTED WET MEADOW (SEE WET MEADOW SEED MIX)

TYPICAL WETLAND MEADOW CROSS-SECTION NOT TO SCALE

NEW ENGLAND ROADSIDE MATRIX WET MEADOW SEED MIX SPECIES:

GRASSES

CREeping BENTGRASS (AGROSTIS STOLONIFERA), RIVERBANK WILD RYE (ELYMUS RIPARIUS), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), DEER TONGUE (PANICUM CLANDESTINUM), SWITCH GRASS (PANICUM VIRGATUM).

WILDFLOWERS

FLAT-TOP ASTER (ASTER UMBELLATUS), NODDING BUR-MARIGOLD (BIDENS CERNUA), JOE-PYE WEED (EUPATORIUM MACULATUM), BONESET (EUPATORIUM PERFORIATUM), BLUE Vervain (VERBENA HASTATA).

SHRUBS

SILKY DOGWOOD (CORNUS AMOMUM), STEEPLE BUSH (SPIRAEA TOMENTOSA), ARROWWOOD (VIBURNUM DENTATUM).

APPLICATION RATE: 35 LBS / ACRE OR 1,250 S.F. / LB.

RESTORED 50' PERIMETER WETLAND (SEE UPLAND SEED MIX)

NEW ENGLAND ROADSIDE MATRIX UPLAND SEED MIX SPECIES:

GRASSES

BIG BLUESTEM (ANDROPOGON GERARDII), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), INDIANGRASS (SORGHASTRUM NUTANS).

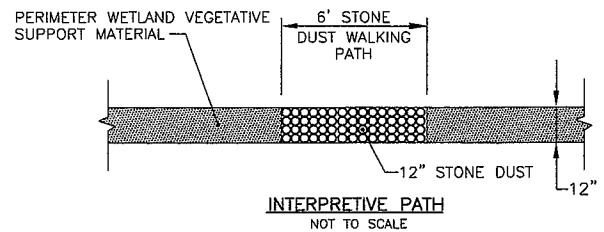
WILDFLOWERS

BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), ROUND-HEADED BUSH CLOVER (LESPEDeza CAPITATA), WILD BLUE LUPINE (LUPINUS PERENNIS), EARLY GOLDENROD (SOLIDAGO JUNCEA), WHITE Vervain (VERBENA URTICIFOLIA), GOLDEN ALEXANDERS (ZIZIA AUREA).

SHRUBS

GRAY DOGWOOD (CORNUS RACEMOSA), STAGHORN SUMAC (RHUS TYPHINA).

APPLICATION RATE: 35 LBS / ACRE OR 1,250 S.F. / LB.



SILT FENCE NOTE:

SILT FENCE TO BE INSTALLED ALONG THE EXISTING WETLAND EDGE LINE. INSTALLATION OF THE IMPERVIOUS LINER SHALL BEGIN 2' AWAY FROM THE SILT FENCE LINE INSIDE THE LIMITS OF DISTURBANCE.

WETLAND REPLICATION SUMMARY

RESOURCE	IMPACT AREA (S.F.) ON LOT 15	REPLICATION AREA (S.F.) ON LOT 15	REPLICATION AREA (S.F.) ON LOT 11	TOTAL REPLICATION AREA (S.F.)
MARSH	45,437	14,069	66,613	80,682
50' PERIMETER WETLAND	61,334	10,400	62,409	72,809



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

CROSSMAN ENGINEERING, INC.

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: csei@crossmaneng.com

PROJECT TITLE:

WETLAND REPLICATION DETAILS AND LEGEND

A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

PREPARED FOR:

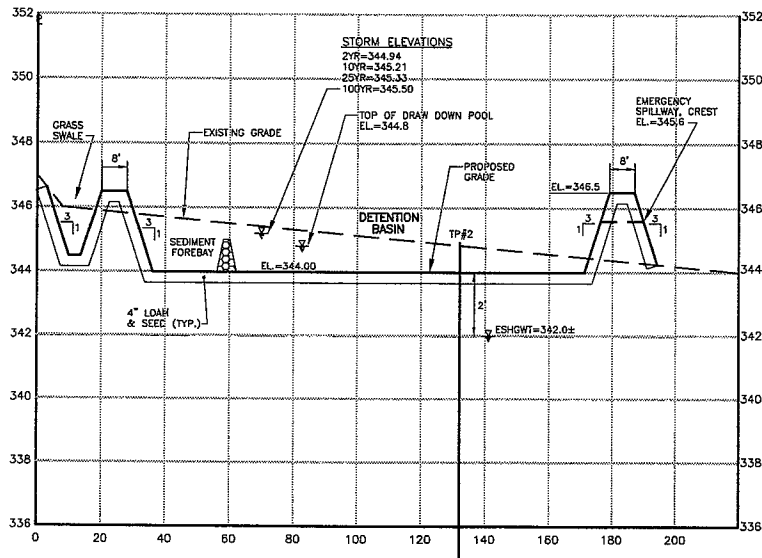
MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE: 1/09

SCALE: NO SCALE

REVISIONS:

SHEET 9 OF 12

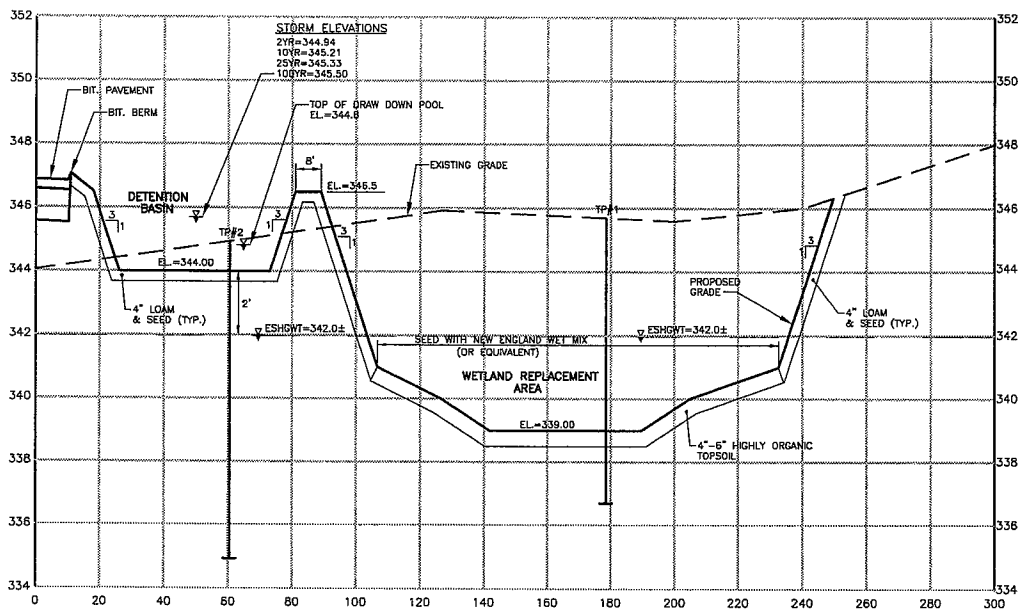


SECTION A-A
SCALE: HORIZ. 1"=60'
VERT. 1"=6'

**DETENTION BASIN
STAGE/STORAGE TABLE**

ELEV.	CONTOUR AREA (S.F.)	TOTAL STORAGE (C.F.)
344	6,345	0
345	7,473	6,903
346	8,673	14,970
346.5	9,300	19,463

NOTE: THE MINIMUM STORAGE VOLUME FROM ELEVATION 344 TO ELEVATION 344.8 MUST BE 5,419 CUBIC FEET.



SECTION B-B
SCALE: HORIZ. 1"=60'
VERT. 1"=6'

NOTE: ELEVATIONS ARE BASED
UPON NGVD 29 DATUM



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

CROSS SECTIONS PLAN NO. 1

A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

PREPARED FOR:

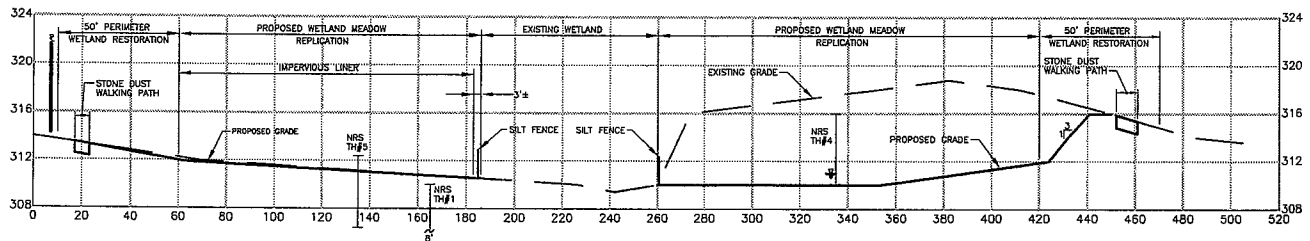
MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE: 1/09

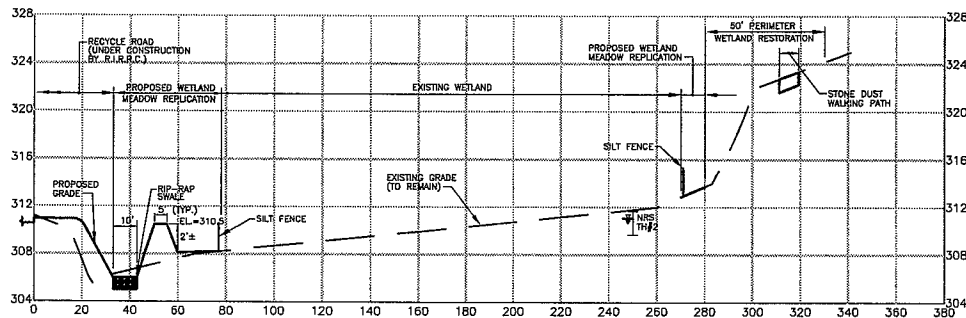
SCALE: AS NOTED

REVISIONS:

SHEET 10 OF 12



SECTION C-C
SCALE: HORIZ. 1"=80'
VERT. 1"=16'



SECTION D-D
SCALE: HORIZ. 1"=80'
VERT. 1"=16'

NOTE: ELEVATIONS ARE BASED
UPON NGVD 29 DATUM



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-6660 - Fax: (401) 738-8157
Email: cei@crossmaneng.com

PROJECT TITLE:

**CROSS SECTIONS PLAN
NO. 2**

A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

PREPARED FOR:

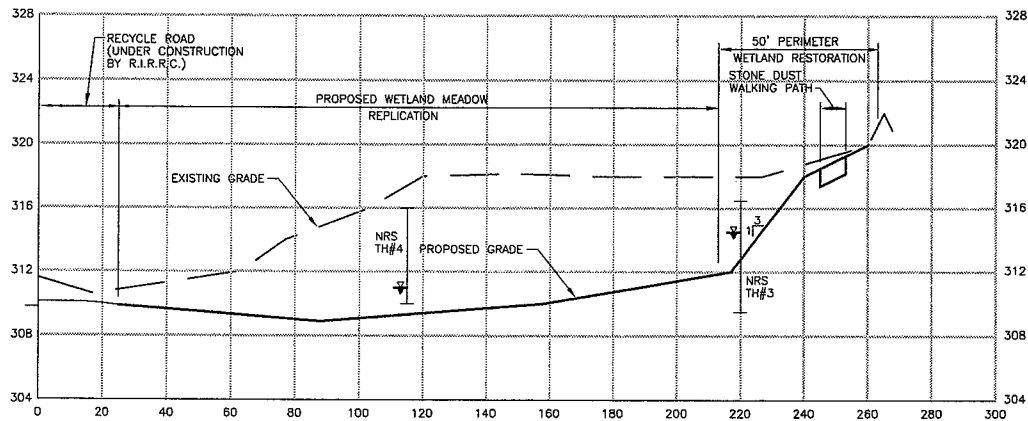
MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND

DATE: 1/09

SCALE: AS NOTED

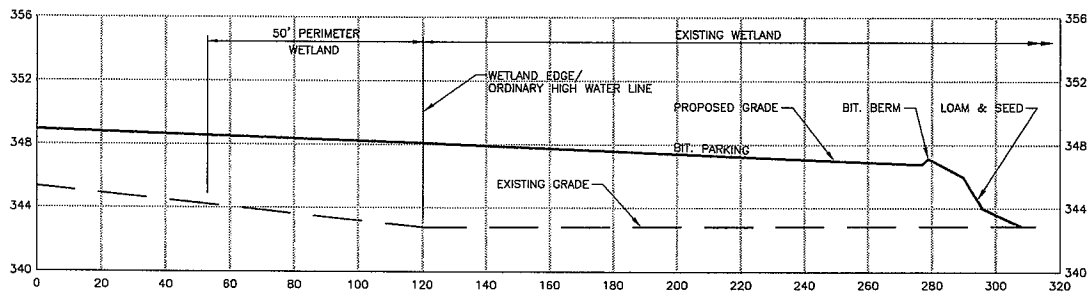
REVISIONS:

SHEET 11 OF 12



SECTION E-E

SCALE: HORIZ. 1"=60'
VERT. 1"=12'



SECTION F-F

SCALE: HORIZ. 1"=60'
VERT. 1"=12'

NOTE: ELEVATIONS ARE BASED
UPON NGVD 29 DATUM



- Civil
- Transportation
- Environmental
- Site Planning
- Land Surveying

**CROSSMAN
ENGINEERING, INC.**

151 Centerville Road
Warwick, Rhode Island 02886
Phone: (401) 738-5660 - Fax: (401) 738-8157
Email: cel@crossmaneng.com

PROJECT TITLE:

**CROSS SECTIONS PLAN
NO. 3**

**A.P. 31, LOT 61
SHUN PIKE AND SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

PREPARED FOR:

**MICHAEL V. D'AMBRA
SCITUATE AVENUE
JOHNSTON, RHODE ISLAND**

DATE: 1/09

SCALE: AS NOTED

REVISIONS:

SHEET 12 OF 12